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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,329	09/24/2003	Chien-Jung Chen	089048-0301	2303
22428	7590	05/06/2005	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			HAN, YOUNGHUIE JESSICA	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,329

Applicant(s)

CHEN ET AL.

Examiner

Y. J. Han

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art in view of Kayser et al (6,295,212).

The acknowledged prior art discloses the invention substantially as claimed including a fan assembly comprising: a direct current brushless fan motor; and a power converter module for providing a regulated direct current voltage to said direct current brushless fan motor, said power converter module including: a rectifier (full-wave diode bridge) having first and second rectifier terminals adapted to be coupled electrically to an external alternating current power source, a third rectifier terminal connected electrically to a first node, and a fourth rectifier terminal connected electrically to a grounded node; a metal thin film capacitor adapted to interconnect

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one of said first and second rectifier terminals of said rectifier to the external alternating current power source; and a voltage regulating circuit adapted to interconnect said rectifier to said direct current brushless fan motor, said voltage regulating circuit including a limiting resistor having a first resistor terminal connected electrically to said first node, and a second resistor terminal connected electrically to a second node, wherein the direct current voltage is provided to the direct current brushless fan motor (see page 1, line 11 thru page 2, line 6 of the specification). A second filter capacitor that has a first capacitor terminal connected electrically to said first node, and a second capacitor terminal connected electrically to said grounded node (see page 1, lines 24-26 of the specification). The acknowledged prior art, however, does not disclose a first filter capacitor having a first capacitor terminal connected electrically to a third node, and a second capacitor terminal connected electrically to said grounded node, and a voltage regulator interconnecting said second and third nodes, and having a regulator terminal connected electrically to said grounded node, wherein the regulated direct current voltage is provided to said direct current brushless fan motor through said third and grounded nodes. Kayser et al teaches that the use such feature is well known in the art. "A capacitor C2 connected across the output terminals smoothes the output, and a zener diode D3 in parallel with the capacitor C2 regulates the output voltage." (Col. 2, lines 57-59) Moreover, Figure 2 of Kayser et al clearly shows the voltage regulator zener diode D1 in parallel with the filter capacitor (C3). Therefore, it would have been obvious to one having ordinary skill in the art to employ the zener diode in parallel of Kayser et al to the acknowledged prior art to obtain the claimed invention for the purpose of smoothing and regulated voltage output.

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4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art in view of Kayser et al (6,295,212) as applied to claims 1-3, 7, and 8 above, and further in view of Lawson (5,637,789).

The acknowledged prior art and Kayser et al do not disclose that voltage regulator is an integrated circuit. Lawson, however, clearly teaches that such feature is well known in the art. At column 4, lines 2-5, Lawson discloses "Rectified output voltage is passed along to smoothing capacitor (420) and on into voltage regulator (410) (integrated circuit type LM7812, or device with similar characteristics)." Therefore, it would have been obvious to one of ordinary skill in the art to employ the voltage regulator in an integrated circuit, as taught by Lawson, to obtain the claimed invention for the purpose of efficient packaging of power converter circuits.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art in view of Kayser et al (6,295,212) as applied to claims 1-3, 7, and 8 above, and further in view of Munshi (6,426,863).

The acknowledged prior art and Kayser et al do not disclose that the metal thin film capacitor is made from zinc. Munshi, however, clearly teaches that it is well known in the art to use in making the metal thin film capacitor. See claim 22 of Munshi. Therefore, it would have been obvious to one of ordinary skill in the art to use zinc in making the metal thin film capacitor, as taught by Munshi, for the purpose of increasing in volumetric energy density, high cycle life, greater reliability and low cost.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art in view of Kayser et al (6,295,212) as applied to claims 1-3, 7, and 8 above, and further in view of Farrall et al (5,047,893).

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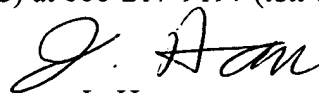
The acknowledged prior art and Kayser et al do not disclose that the terminals of metal thin film capacitor are made from silver plated copper. Farrall et al teaches that the use of silver plated copper for making capacitor is well known in the art. See column 4, lines 25-27.

Therefore, it would have been obvious to one of ordinary skill in the art to employ silver plated copper for the terminals of the capacitor, as taught by Farrall et al, for the purpose of obtaining an efficient conductivity in a capacitor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. J. Han whose telephone number is 571-272-2078. The examiner can normally be reached on Mon-Fri 5:30am-2:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. Han
Primary Examiner
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